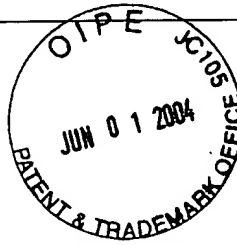


TRANSMITTAL FORM

Attorney Docket No.
RAL9-2001-0007US1
2026PIFW 3661
AF
SIn re the application **BATES, et al.**Confirmation No: **9182**Serial No: **09/822,103**Group Art Unit: **3661**Filed: **March 30, 2001**Examiner: **Hernandez, Olga**For: **METHOD AND SYSTEM FOR CONTROLLING AN AUTOMATIC TRANSMISSION USING A GPS ASSIST HAVING A LEARN MODE**

ENCLOSURES (check all that apply)

<input type="checkbox"/>	Amendment/Reply	<input type="checkbox"/>	Assignment and Recordation Cover Sheet	<input type="checkbox"/>	After Allowance Communication to Group
<input type="checkbox"/>	After Final	<input type="checkbox"/>	Part B-Issue Fee Transmittal	<input type="checkbox"/>	Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/>	Information disclosure statement	<input type="checkbox"/>	Letter to Draftsman	<input checked="" type="checkbox"/>	Appeal Brief (in triplicate)
<input type="checkbox"/>	Form 1449	<input type="checkbox"/>	Drawings	<input type="checkbox"/>	Status Letter
<input type="checkbox"/>	(X) Copies of References	<input type="checkbox"/>	Petition	<input checked="" type="checkbox"/>	Postcard
<input type="checkbox"/>	Extension of Time Request *	<input type="checkbox"/>	Fee Address Indication Form	<input type="checkbox"/>	Other Enclosure(s) (please identify below):
<input type="checkbox"/>	Express Abandonment	<input type="checkbox"/>	Terminal Disclaimer		
<input type="checkbox"/>	Certified Copy of Priority Doc	<input type="checkbox"/>	Power of Attorney and Revocation of Prior Powers		
<input type="checkbox"/>	Response to Incomplete Appln	<input type="checkbox"/>	Change of Correspondence Address		
<input type="checkbox"/>	Response to Missing Parts	*Extension of Term: Pursuant to 37 CFR 1.136, Applicant petitions the Commissioner to extend the time for response for xxxxxx month(s), from to .			
<input type="checkbox"/>	Executed Declaration by Inventor(s)				

CLAIMS

FOR	Claims Remaining After Amendment	Highest # of Claims Previously Paid For	Extra Claims	RATE	FEE
Total Claims	0	0	0	\$18.00	\$ 0.00
Independent Claims	0	0	0	\$86.00	\$ 0.00
Total Fees					\$ 0.00

METHOD OF PAYMENT

<input checked="" type="checkbox"/>	Charge \$ <u>330.00</u> to Deposit Account No. <u>50-0563</u> (IBM Corporation) for payment of fees.
<input checked="" type="checkbox"/>	Charge any additional fees or credit any overpayment to Deposit Account No. <u>50-0563</u> (IBM Corporation)

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Attorney Name	Joseph A. Sawyer, Jr., Reg. No. 30,801
Signature	
Date	May 26, 2004

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date: May 26, 2004	
Type or printed name	Jackie Tanda
Signature	

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPEAL NO:

In Re Application of:

Date: May 26, 2004

BATES, et al.

Confirmation No: 9182

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For: METHOD AND SYSTEM FOR CONTROLLING AN AUTOMATIC
TRANSMISSION USING A GPS ASSIST HAVING A LEARN MODE

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Alexandria, VA 22313-1450

APPELLANT'S BRIEF ON APPEAL

Sir:

Appellant herein files an Appeal Brief drafted in accordance with the provisions of 37

C.F.R. § 1.192(c) as follows:

VI. ISSUES

The issues presented are:

(1) whether claims 1, 11, 12, 15, 16, 19, 20, 21, 23, and 24 are each unpatentable under 35
U.S.C. § 103 as being obvious in light of U.S. Patent No. 6,009,374 (Urahashi) in view of U.S.
Patent No. 5,832,400 (Takahashi); and

(2) whether claims 3, 5-10, and 13 are each unpatentable under 35 U.S.C. § 103 as being obvious in light of Urahashi in view of U.S. Patent No. 6,098,005 (Tsukamoto).

VII. GROUPING OF CLAIMS

Appellant hereby states that claims 1-21 and 23-24 do not stand or fall together, but rather claims 1, 3 and 4-10 and claims 11, 13, and 15-21 constitute one group; claims 2 and 12 constitute a second group; claims 4, 14, 23 and 24 constitute a third group. Therefore, Claims 1-24 constitute three (3) separate groups.

VIII. ARGUMENTS

A. Summary of the Applied Rejections

In the Final Office Action, dated December 12, 2003 the Examiner rejected claims 1, 11, 12, 15, 16, 19, 20, 21, 23, and 24 under 35 U.S.C. § 103 as being unpatentable over Urahashi in view of Takahashi. In so doing, the Examiner cited Urahashi as teaching most aspects of the above-identified claims. However, the Examiner also stated that:

Urahashi does not teach determining the performance of the transmission when a particular load on the automatic transmission system increases by a particular amount within a particular time. However, Takahashi teaches it in column 2. therefore, [sic] it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to save a fuel consumption, suppress a vehicular compartment noise and vehicular vibration, purify an exhaust gas of the vehicle and reduce vehicular contaminations, various techniques which automatically adjust operating conditions of either or both of the automotive engine and associated power transmission during the vehicular running have been put into practice.

The Examiner also rejected claims 3, 5-10, and 13 under 35 U.S.C. § 103 as being unpatentable over Urahashi in view of Tsukamoto. In so doing, the examiner cited Urahashi as teaching most aspect of claims 3, 5-10 and 13. However, the Examiner also stated that “Urahashi

does not teach how to: determine whether a driving conditions exists; determine a desires [sic] threshold for the automatic transmission base [sic] on the driving condition. However, Tsukamoto teaches it (figure [sic] 1 and column 5, lines 35-46).”

Appellant respectfully requests that the Board reverse the Examiner’s final rejection of claims 1, 11, 12, 15, 16, 19, 20, 21, 23, and 24 under 35 U.S.C. § 103 and the Examiner’s final rejection of claims 3, 5-10, and 13 under 35 U.S.C. § 103.

B. The Cited Prior Art

Urahashi describes a system that is used in vehicle control. Urahashi, Abstract. Furthermore, the system of utilize GPS data, for example based upon upcoming altitude changes or curves that are indicated by GPS data. Urahashi, cols. 10 and 11. In the case of upcoming curves, Urahashi describes providing an alarm to the driver. Urahashi, col. 10, lines 10-13. In the case of an altitude change corresponding to an uphill or downhill slope, Urahashi determines the altitude change and the current gear value. Urahashi, col. 10, lines 33-35 and 41-42. If the current gear value is deemed unsuitable, then the system of Urahashi changes the gear value to one that is appropriate to the slope, or grade, being traversed. Urahashi, col. 10, lines 42-47. However, as the Examiner has acknowledged, Urahashi is devoid of mention of a mechanism for improving performance based upon a change in the load for a particular time.

Takahashi is also related to vehicular control. The cited portion of Takahashi is a statement of a problem incurred in vehicle control systems. The cited portion of Takahashi describes a vehicle detecting a change in load and causing a switch in the engine mode or transmission. Takahashi, col. 2, lines 16-24. However, by the time the vehicle completes the switch to a different engine or transmission mode, the changed driving condition has ended.

Takahashi, col. 2, lines 44-49. Consequently, it could be argued that the switch in the engine mode or transmission may be inappropriate. The cited portion of Takahashi describes this problem, but provides *no remedy*. Appellant notes that other portions of Takahashi do suggest a solution that is apparently predictive in nature. See Takahashi, col. 3, lines 52-61 and col. 4, line 39-col. 10, line 24. These portions of Takahashi describe estimating a *future* position of the vehicle and adjusting aspects of vehicle performance *in advance* to account for this problem. See, for example, Takahashi, col. 4, lines 60-62; col. 5, lines 1-4 and 8-12.

Tsukamoto also describes a system which also controls the transmission of a vehicle based upon the vehicles surroundings, such as upcoming intersections. Tsukamoto, Abstract. The cited portions of Tsukamoto describe the functions of the controller (item 5 in Figure 1). In particular, the controller confirms the location of a vehicle and based upon whether the accelerator is on or off, the vehicle's position and the vehicle's speed, adjusts the upper limit of transmission stages. Tsukamoto, col. 5, lines 33-39. Depending upon the current stage of the transmission and the upper limits of the transmission stages, engine braking that reduces the speed of the vehicle may occur. Tsukamoto, col. 5, lines 29-46.

C. Claims 1, 11, 12, 15, 16, 19, 20, 21, 23, and 24 Are Not Unpatentable Under 35 U.S.C. § 103.

Appellant respectfully submits that the applied rejections of claims 1, 11, 12, 15, 16, 19, 20-21, and 23-24 under 35 U.S.C. § 103 are without merit as the Examiner has completely failed to explain why Urahashi in view of Takahashi teaches or suggests the methods and systems recited in claims 1, 11, 12, 15, 16, 19, 20-21, and 23

Claims 1 and 11 recite a system and method, respectively, which use GPS positioning data, transmission data, and at least one specific criterion whether performance of the transmission is

improvable. In particular, the method and system recited in claims 1 and 11 determine whether the performance can be improved based on whether a load on the automatic transmission system increases by a certain amount within a certain amount of time. Claims 1 and 11 also recite that in response, the shift threshold (the load at which the transmission automatically shifts the gear) may be adjusted. Thus, the performance of the system is improved and shifting may be smoother, gas mileage improved, and wear and tear on the automatic transmission reduced. Specification, page 7, lines 10-13.

The cited portions of Urahashi and Takahashi, separately or in combination, fail to teach or suggest the method and system recited in claims 1 and 11. As the Examiner has acknowledged, the cited portions of Urahashi fail to teach or suggest controlling an automatic transmission using a change in a load in a particular time to determine whether performance can be improved and controlling the automatic transmission based upon this determination. In addition, Urahashi describes changing a gear *value* based upon the positioning data, more specifically the slope of the hill being traversed. Consequently, Urahashi fails to describe changing a gear *threshold* for any reason including positioning data. Consequently, Urahashi fails to teach or suggest the method and system recited in claims 1 and 11.

The cited portions of Takahashi fails to remedy the defects of Urahashi. As discussed above, Takahashi describes a problem that occurs when a driving condition that lasts for a short period might cause a change in the transmission mode of the vehicle that adversely affect the performance of the vehicle. Takahashi's solution to this is to predict a future position of the vehicle and to adjust aspects of the vehicle in advance to account for brief changes in terrain.

Thus, if the cited portions of Takahashi are added to the cited portions of Urahashi, the combination would still fail to teach or suggest controlling an automatic transmission using a

change in a load in a particular time to determine whether performance can be improved and controlling the automatic transmission based upon this determination. If the teachings of the cited portions of Takahashi and Urahashi were combined, the problem described by Takahashi might be known to Urahashi. In addition, if Takahashi's predictive solution is incorporated into the teachings of Urahashi, the combination might estimate the future position of the vehicle and change the gear value based upon this estimate. However, the combination would still not determine whether a load on the automatic transmission system increases by a certain amount within a certain amount of time. Further, the combination would adjust the gear value, rather than the shift threshold. Consequently, Urahashi in view of Takahashi also fails to teach or suggest the method and system recited in claims 1 and 11. Accordingly, Appellant respectfully submits that claims 1 and 11 are allowable over the cited references.

Claims 15, 16, 19, 20, and 21 depend upon independent claim 11. Consequently, the arguments herein apply with full force to claims 15, 16, 19, 20, and 21. Accordingly, Appellant respectfully submits that claims 15, 16, 19, 20, and 21 are allowable over the cited references.

Appellant also respectfully disagrees with the Examiner's rejection of claim 12 as being unpatentable over Urahashi in view of Takahashi. Claim 12 recites a system for controlling an automatic transmission that uses GPS positioning data, transmission data, and at least one specific criterion whether performance of the transmission is improvable. In particular, the system recited in claim 12 determines whether the performance can be improved based on whether a one-time event has occurred and ensures that the automatic transmission is at a factory setting if the one-time event has occurred. For example, the system recited in claim 12 might account for unusually light or heavy loads, a trailer being towed, or strong head or tail winds that may adversely affect

performance of the vehicle. Specification, page 8, lines 5-11. Thus, even upon the occurrence of a one-time event, the system in claim 12 can improve the performance of the automatic transmission.

The cited portion of Urahashi fails to teach or suggest a system, which accounts for one-time effects. The cited portions of Urahashi are also devoid of mention of the desirability of possibility of one-time effects, such as winds, loads, or trailers being towed, being accounted for in any manner. Moreover, as described above, Urahashi adjust a gear value, rather than the shift threshold.

The cited portions of Takahashi fail to remedy the defects of Urahashi. As described above, Takahashi states a problem, then provides a solution that is predictive in nature. The cited portion of Takahashi is also devoid of mention of one-time effects, such as winds, loads, or trailers being towed. Consequently, any combination of Urahashi and Takahashi would fail to teach or suggest this feature. Instead, as described above, the combination of the cited portions of Urahashi and Takahashi would simply estimate the appropriate engine and transmission setting. Consequently, the combination of Urahashi and Takahashi fail to teach or suggest the method recited in claim 12. Accordingly, Appellant respectfully submits that claim 12 is allowable over the cited references

In the above-identified Final Office Action, the Examiner did not explicitly state the reasons for rejection claim 2. However, claim 2 recites a method that is analogous to the system recited in claim 12. Consequently, the reasoning above with respect to claim 12 applies with full force to claim 2. Accordingly, Appellant respectfully submits that claim 2 is allowable over the cited references.

Appellant also respectfully disagrees with the Examiner's rejection of claims 23-24. Claims 23 and 24 recite a method and system for controlling an automatic transmission that uses GPS positioning data, transmission data. The method and system recited in claims 23-24 further determine that the performance is improvable is an unnecessary shift has occurred and changes shift

thresholds based upon an unnecessary shift occurring. An unnecessary shift is defined in claims 23-24 as a shift that occurs for less than or equal to a particular amount of time. Thus, unnecessary shifts may be reduced or avoided, thereby improving performance.

In contrast, Appellant can find no mention the cited portions of Urahashi of determining whether there is an unnecessary shift. Moreover, the cited portions of Urahashi do not indicate that the performance of an unnecessary shift, as defined as a shift for less than a particular period of time, might be used to improve performance. Furthermore, as discussed above, Urahashi describes changing the gear value, not the shift threshold. Consequently, Urahashi does not teach or suggest the method and system recited in claims 23 and 24.

The cited portion of Takahashi fails to remedy the defects of Urahashi. As discussed above, the cited portion of Takahashi poses a problem, but provides no solution. The remaining portion of Takahashi describes a predictive solution to the problem identified by Takahashi but does not describe determining that performance is improvable when an unnecessary shift of less than or equal to a particular amount of time has occurred. If the predictive capabilities described in Takahashi are coupled with the system of Urahashi, the gear values appropriate for certain terrain could be set in advance. Even though the combination of Urahashi and Takahashi might solve the problem of an unnecessary shift, the combination does so by predicting the terrain which the vehicle will encounter, not by determining whether unnecessary shift(s) have occurred. Thus, any combination of Urahashi and Takahashi would also fail to teach or suggest this determining whether there is an unnecessary shift and altering shift thresholds based upon the unnecessary shifts occurring. Accordingly, Appellant respectfully submits that claims 23-24 are allowable over the cited references.

The Examiner did not explicitly state the reasons for rejecting claim 4. Claim 4 recites a method that is analogous to claims 23-24. Consequently, the arguments herein apply with full force to claims 23-24. Accordingly, Appellant respectfully submits claim 4 is allowable over the cited references.

Accordingly Appellant respectfully requests that the Board reverse the final rejection of claims 1, 11, 12, 15, 16, 19, 20, 21, 23, and 24 under 35 U.S.C. § 103.

D. Claims 3, 5-10, and 13 Are Not Unpatentable Under 35 U.S.C. § 103.

Appellant respectfully submits that the applied rejections of claims 3, 5-10, and 13 under 35 U.S.C. § 103 as being unpatentable over Urahashi in view of Tsukamoto.

Claims 3 and 5-10 depend upon independent claim 1. Claim 13 depends upon independent claim 11. Consequently, the discussion herein with respect to Urahashi applies with full force to claims 3, 5-10, and 13. In particular, Urahashi fails to teach or suggest controlling an automatic transmission using a change in a load in a particular time to determine whether performance can be improved and controlling the automatic transmission based upon this determination. Moreover, as the Examiner has acknowledged, Urahashi does not teach how to determine whether a driving conditions exists and to determine a desired threshold for the automatic transmission base on the driving condition.

Tsukamoto fails to remedy the defects of Urahashi. Consequently, any combination of Urahashi and Tsukamoto also fails to teach or suggest the method and system recited in claims 3, 5-10, and 13. Tsukamoto describes utilizing the vehicle's surroundings to adjust the vehicle's gears. However, Urahashi also uses the vehicle's surroundings. Consequently, a combination of Urahashi and Tsukamoto might use the terrain near the vehicle to adjust gear values. However,

because both Tsukamoto and Urahashi fail to describe determining that the performance of the automatic transmission is improvable when a particular load on the automatic transmission system increases by a particular amount within a particular time, the combination would also fail to teach or suggest this feature. As a result, Urahashi in view of Tsukamoto fails to teach or suggest the methods and system recited in claims 3, 5-10 and 13. Accordingly, Appellant respectfully submits that claims 3, 5-10, and 13 are allowable over the cited references.

Accordingly Appellant respectfully requests that the Board reverse the final rejection of claims 3, 5-10, and 13 under 35 U.S.C. § 103.

E. Summary of Arguments

For all the foregoing reasons, it is respectfully submitted that Claims 1-21 and 23-24 (all the claims presently in the application) are patentable for defining subject matter which would not have been obvious under 35 U.S.C. § 103 at the time the subject matter was invented. Thus, Appellant respectfully requests that the Board reverse the rejection of all the appealed claims and find each of these claims allowable.

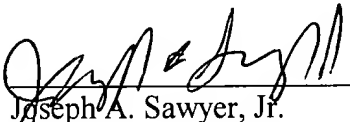
Note: For convenience of detachment without disturbing the integrity of the remainder of pages of this Appeal Brief, Appellant's "APPENDIX" section is contained on separate sheets following the signatory portion of this Appeal Brief.

This Brief is being submitted in triplicate, and authorization for payment of the required Brief fee is contained in the transmittal letter for this Brief. Please charge any fee that may be necessary for the continued pendency of this application to Deposit Account No. 50-0563 (IBM Corp.).

Very truly yours,

SAWYER LAW GROUP LLP

May 26, 2004



Joseph A. Sawyer, Jr.
Attorney for Appellants
Reg. No. 30,801
(650) 493-4540

IX. APPENDIX

1. A method for controlling an automatic transmission comprising the steps of:

- (a) obtaining positioning data using a global positioning satellite (GPS);
- (b) monitoring the automatic transmission to obtain transmission data;
- (c) learning whether performance of the automatic transmission is improvable

utilizing the positioning data and the transmission data;

wherein step (c) determines that the performance of the automatic transmission is improvable when a particular load on the automatic transmission system increases by a particular amount within a particular time;

(d) adjusting a shift threshold for the automatic transmission for the positioning data if step (c) determines that the performance of the automatic transmission is improvable and if the positioning data can be obtained using the GPS, and setting the shift threshold to a preset shift threshold if the positioning data cannot be obtained using the GPS.

2. A method for controlling an automatic transmission comprising the steps of:

- (a) obtaining positioning data using a global positioning satellite (GPS);
- (b) monitoring the automatic transmission to obtain transmission data;
- (c) learning whether performance of the automatic transmission is improvable

utilizing the positioning data and the transmission data;

(d) adjusting a shift threshold for the automatic transmission for the positioning data if step (c) determines that the performance of the automatic transmission is improvable;

- (e) determining whether a one-time event has occurred; and

(f) ensuring that the automatic transmission is at a factory setting if the one-time event has occurred.

3. The method of claim 1 the threshold-adjusting step (d) further includes the steps of:

(d1) determining whether a driving condition exists; and

(d2) determining a desired threshold for the automatic transmission based on the driving condition.

4. A method for controlling an automatic transmission comprising the steps of:

(a) obtaining positioning data using a global positioning satellite (GPS);

(b) monitoring the automatic transmission to obtain transmission data;

(c) learning whether performance of the automatic transmission is improvable

utilizing the positioning data and the transmission data, the learning step (c) further including the step of

(c1) determining that the performance is improvable if the automatic transmission performs an unnecessary shift a particular number of times, the unnecessary shift being a shift that occurs for less than or equal to a particular amount of time; and

(d) adjusting a shift threshold for the automatic transmission for the positioning data if step (c) determines that the performance of the automatic transmission is improvable.

5. The method of claim 1 wherein the adjusting step (d) further includes the steps of:

(d1) determining a particular shift thresholds; and

(d2) adjusting the shift threshold by a portion of a difference between a current shift threshold and the particular shift threshold each time step (c) determines that the performance of the automatic transmission can be improved.

6. The method of claim 1 further comprising the step of:

(e) storing a record of the positioning data and transmission data each time steps (a) and (b) are performed.

7. The method of claim 6 further comprising the step of:

(f) removing the record if the positioning data in step (a) is not repeated for a particular time.

8. The method of claim 1 wherein the monitoring step (b) further includes the step of:

(b1) monitoring a load on the transmission.

9. The method of claim 8 wherein the learning step (c) further includes the step of:

(c1) determining whether the load indicates that the automatic transmission is to shift up or shift down and wherein the shift threshold adjusting step (d) includes the step of

(d1) adjusting the shift level up if the load indicates that the automatic transmission is to shift up and adjusting the shift threshold down if the load indicates that the automatic transmission is to shift down.

10. The method of claim 1 wherein the position obtaining step (a) further obtains an altitude from the BPS and wherein the shift threshold adjusting step (d) further includes the step of:

(d1) adjusting the shift threshold for the automatic transmission based on the altitude.

11. A system for controlling an automatic transmission comprising:
a global positioning satellite (GPS) subsystem for obtaining positioning data using a GPS satellite;

a transmission subsystem coupled to the transmission and the GPS subsystem for monitoring the automatic transmission to obtain transmission data, for learning whether performance of the automatic transmission is improvable utilizing the positioning data and the transmission data and for adjusting a shift threshold for the automatic transmission for the positioning data if the transmission subsystem determines that the performance of the automatic transmission is improvable; and

wherein the automatic transmission includes a preset shift threshold and wherein if the GPS subsystem is off, the transmission subsystem sets the shift threshold to the preset shift threshold;

wherein the automatic transmission subsystem determines that the performance of the automatic transmission is improvable when a particular load on the automatic transmission system increases by a particular amount within a particular time.

12. A system for controlling an automatic transmission comprising:

a global positioning satellite (GPS) subsystem for obtaining positioning data using a GPS satellite;

a transmission subsystem coupled to the transmission and the GPS subsystem for monitoring the automatic transmission to obtain transmission data, for learning whether performance of the automatic transmission is improvable utilizing the positioning data and the transmission data and for adjusting a shift threshold for the automatic transmission for the positioning data the transmission subsystem determines that the performance of the automatic transmission is improvable; and

wherein the transmission subsystem further determines whether a one-time event has occurred and ensures that the automatic transmission is at a factory setting if the one-time event has occurred.

13. The system of claim 11 wherein the transmission subsystem adjusts the threshold by determining whether a driving condition exists and determining a desired threshold for the automatic transmission based on the driving condition.

14. The system of claim 11 wherein the transmission subsystem further adjusts the shift threshold only if the transmission subsystem determines a particular number of times that the performance of the automatic transmission is improvable.

15. The system of claim 11 wherein the transmission subsystem further adjusts the shift threshold each time the transmission subsystem determines that performance of the automatic transmission is improvable.

16. The system of claim 11 further comprising:
a memory coupled to the transmission subsystem for storing a record of the positioning data and transmission data.
17. The system of claim 16 wherein the transmission subsystem further removes the record if the positioning data is not repeated for a particular time.
18. The system of claim 11 wherein the transmission subsystem monitors a load on the transmission.
19. The system of claim 18 wherein the transmission subsystem determines whether the load indicates that the automatic transmission is to shift up or shift down and wherein the transmission subsystem further adjusts the shift level up if the load indicates that the automatic transmission is to shift up and adjusting the shift threshold down if the load indicates that the automatic transmission is to shift down.
20. The system of claim 11 wherein the GPS subsystem and the transmission subsystem are integrated into the automatic transmission.
21. The system of claim 11 wherein the GPS subsystem is integrated into a GPS navigation system.
23. A method for controlling an automatic transmission comprising the steps of:

- (a) obtaining positioning data using a global positioning satellite (GPS);
- (b) monitoring the automatic transmission to obtain transmission data;
- (c) learning whether performance of the automatic transmission is improvable

utilizing the positioning data and the transmission data, the performance of the automatic transmission being improved by a shift threshold adjustment if the automatic transmission performs an unnecessary shift, the unnecessary shift being a shift that occurs for less than or equal to a particular amount of time; and

- (d) adjusting a shift threshold for the automatic transmission for the positioning data if step (c) determines that the performance of the automatic transmission is improvable.

24. A system for controlling an automatic transmission comprising:

a global positioning satellite (GPS) subsystem for obtaining positioning data using a GPS satellite;

a transmission subsystem coupled to the transmission and the GPS subsystem for monitoring the automatic transmission to obtain transmission data, for learning whether performance of the automatic transmission is improvable utilizing the positioning data and the transmission data, the performance of the automatic transmission being improved by a shift threshold adjustment if the automatic transmission performs an unnecessary shift, the unnecessary shift being a shift that occurs for less than or equal to a particular amount of time, and for adjusting a shift threshold for the automatic transmission for the positioning data if the performance of the automatic transmission can be improved.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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For: METHOD AND SYSTEM FOR CONTROLLING AN AUTOMATIC
TRANSMISSION USING A GPS ASSIST HAVING A LEARN MODE

APPELLANT'S BRIEF

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INTERNATIONAL BUSINESS MACHINES
Sawyer Law Group LLP

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IX. APPENDIX